

What is Claimed:

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1. A keratinocyte growth factor fragment or an analog thereof comprising a portion of an amino acid sequence of mature, full-length keratinocyte growth factor, wherein the fragment exhibits at least a 2-fold increase in mitogenic activity as compared to a mature, recombinant, full-length keratinocyte growth factor, and lacks a sequence comprising the first 23 N-terminal amino acid residues of the mature, full-length keratinocyte growth factor.
 2. The keratinocyte growth factor fragment as claimed in claim 1, wherein the fragment exhibits a 7-fold increase in mitogenic activity as compared to the mature, recombinant, full-length keratinocyte growth factor.
 3. The keratinocyte growth factor fragment as claimed in claim 1, wherein the fragment exhibits a 10-fold increase in mitogenic activity as compared to the mature, recombinant, full-length keratinocyte growth factor.
 4. The keratinocyte growth factor fragment as claimed in claim 1, wherein the fragment exhibits decreased cytotoxicity as compared to the mature, recombinant, full-length keratinocyte growth factor.
 5. A conjugate comprising:
 - (a) a keratinocyte growth factor fragment or an analog thereof that comprises a portion of an amino acid sequence of mature, full-length keratinocyte growth factor, wherein the fragment exhibits at least a 2-fold increase in mitogenic activity as compared to the mature, recombinant, full-length keratinocyte growth factor and lacks a sequence comprising the first 23 N-terminal amino acid residues of the mature, full-length keratinocyte growth factor, and
 - (b) a toxin molecule.
 6. The conjugate of claim 5, wherein the toxin molecule is selected from the group consisting of ricin A, diphtheria toxin, and saporin.

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7. The conjugate of claim 5, wherein the fragment exhibits a 7-fold increase in mitogenic activity as compared to the mature, recombinant, full-length keratinocyte growth factor.

8. The conjugate of claim 5, wherein the fragment exhibits a 10-fold increase in mitogenic activity as compared to the mature, recombinant, full-length keratinocyte growth factor.

9. A therapeutic composition comprising:

(a) a keratinocyte growth factor fragment or an analog thereof that comprises a portion of an amino acid sequence of mature, full-length keratinocyte growth factor, wherein the portion exhibits at least a 2-fold increase in mitogenic activity as compared to the mature, recombinant, full-length keratinocyte growth factor but lacks a sequence comprising the first 23 N-terminal amino acid residues of the mature, full-length keratinocyte growth factor, and

(b) a pharmaceutically acceptable carrier.

10. A DNA molecule comprising a nucleotide sequence that encodes the keratinocyte growth factor fragment or analog of claim 1.

11. A DNA molecule comprising a nucleotide sequence that encodes the keratinocyte growth factor fragment or analog of claim 2.

12. A DNA molecule comprising a nucleotide sequence that encodes the keratinocyte growth factor fragment or analog of claim 3.

13. An expression vector comprising the DNA molecule of claim 10 and a regulatory sequence for expression of the DNA molecule.

14. The expression vector as claimed in claim 13, wherein the vector is a baculovirus.

15. The expression vector as claimed in claim 13, wherein the vector is a yeast vector.

16. The expression vector as claimed in claim 15, wherein the regulatory sequence comprises a promoter sequence selected from the group consisting of ADH2/GAPDH and GAPDH promoter sequences.

17. The expression vector as claimed in claim 16, wherein the vector further comprises a truncated pre-pro, α -factor leader sequence linked in frame to the DNA molecule of claim 10.

18. A host cell transformed with the expression vector of claim 13.

19. The host cell as claimed in claim 18, wherein the cell is selected from the group consisting of a bacterial cell, a yeast cell, a mammalian cell and an insect cell.

20. A method of producing a keratinocyte growth factor fragment comprising the steps of culturing the host cell of claim 19, and isolating the keratinocyte growth factor fragment from the culture.

21. A method for wound healing comprising applying the therapeutic composition of claim 9 to an area of a wound to be treated and allowing the wound to heal.

22. A method of treatment of a hyperproliferative disease of the epidermis comprising applying the conjugate of claim 5 to an area to be treated.

23. The method of treatment as claimed in claim 22, wherein the hyperproliferative disease is psoriasis or basal cell carcinoma.

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